

B1
Cont'd.
wherein the irradiation of said semiconductor layer is conducted in such a manner that said semiconductor layer is scanned with said laser beam in parallel with a carrier flow direction in said channel region.

22. (New) A method for manufacturing a semiconductor device having at least one thin film transistors, said method comprising the steps of:

forming a semiconductor layer over a substrate;

irradiating said semiconductor layer with a CW laser beam having a wavelength of 1064 nm to crystallize said semiconductor layer; and

patterning the crystallized semiconductor layer to form an active layer including a channel region,

wherein the irradiation of said semiconductor layer is conducted in such a manner that said semiconductor layer is scanned with said laser beam in parallel with a carrier flow direction in said channel region.

23. (New) A method for manufacturing a semiconductor comprising the steps of:

forming a semiconductor layer over a substrate;

irradiating said semiconductor layer with a CW laser beam having a wavelength of 532 nm to crystallize said semiconductor layer; and

patenting the crystallized semiconductor layer to form an active layer including a channel region,

wherein the irradiation of said semiconductor layer is conducted in such a manner that said semiconductor layer is scanned with said laser beam in parallel with a carrier flow direction in said channel region.

24. (New) A method for manufacturing a semiconductor device comprising the steps of:

forming a semiconductor layer over a substrate;

irradiating said semiconductor layer with a CW laser beam having a wavelength of 355 nm to crystallize said semiconductor layer; and

patenting the crystallized semiconductor layer to form an active layer including a channel region,

wherein the irradiation of said semiconductor layer is conducted in such a manner that said semiconductor layer is scanned with said laser beam in parallel with a carrier flow direction in said channel region.

25. (New) A method for manufacturing a semiconductor device comprising the steps of:

forming a semiconductor layer over a substrate;

B' Contd.
irradiating said semiconductor layer with a CW laser beam comprising Nd to crystallize said semiconductor layer; and

patterning the crystallized semiconductor layer to form an active layer including a channel region,

wherein the irradiation of said semiconductor layer is conducted in such a manner that said semiconductor layer is scanned with said laser beam in parallel with a carrier flow direction in said channel region.

26. (New) A method for manufacturing a semiconductor device comprising the steps of:

forming a semiconductor layer over a substrate;

irradiating said semiconductor layer with a second harmonic of a CW laser beam comprising Nd to crystallize said semiconductor layer; and

patterning the crystallized semiconductor layer to form an active layer including a channel region,

wherein the irradiation of said semiconductor layer is conducted in such a manner that said semiconductor layer is

scanned with said laser beam in parallel with a carrier flow direction in said channel region.

B¹
Cont'd.
27. (New) A method for manufacturing a semiconductor device comprising the steps of:

forming a semiconductor layer over a substrate;

irradiating said semiconductor layer with a third harmonic of a CW laser beam comprising Nd to crystallize said semiconductor layer; and

patterning the crystallized semiconductor layer to form an active layer including a channel region,

wherein the irradiation of said semiconductor layer is conducted in such a manner that said semiconductor layer is scanned with said laser beam in parallel with a carrier flow direction in said channel region.

28. (New) The method according to any one of claims 21, 22, 23, 24, 25, 26 or 27 wherein said semiconductor layer comprises amorphous silicon.

29. (New) The method according to any one of claims 21, 22, 23, 24, 25, 26 or 27 wherein the CW laser beam is a YAG laser beam.

B' Amend.
30. (New) The method according to any one of claims 21, 22, 23, 24, 25, 26 or 27 wherein said semiconductor layer is melted by the irradiation of the laser beam. --
